

Mississippi

Mississippi utilities serve a population of almost 3 million and generated 28.8 billion kilowatthours of electricity in 1996. The largest portion of the electricity generated by utilities comes from coal-fired power plants, which produced 12.0 billion kilowatthours in 1996. Roughly 50 percent of the coal used for electricity generation in Mississippi is mined in the southeastern part of Montana. Two of the four largest plants, the third and fourth largest—Jack Watson and Victor J. Daniel—are coal-fired.¹ Three of the five largest plants are located in the western part of the State along the Mississippi River. The other two are located in the extreme southeast along the coast of the Gulf of Mexico. The largest utility in the State is Mississippi Power and Light Company (MP&L).

Mississippi's five largest utilities, MP&L, Mississippi Power, System Energy Resources, South Mississippi Electric Power Association, and Greenwood Utilities, operate virtually all (98.7 percent) of the State's utility net summer capability. The average price of electricity in Mississippi, 6.01 cents per kilowatthour, was twentieth lowest in the Nation.

Overall electricity sales increased between 1986 and 1996. In 1996, utility retail sales were 39.6 billion kilowatthours, with industrial sales accounting for 40.5 percent of sales followed by residential sales at 37.8

percent. Over 40 percent of retail sales was provided through the 23 public utilities and 25 cooperatives.

In addition to its coal-fired generation, Mississippi also has significant gas-fired and nuclear power generation. The relatively large gas-fired share can be attributed to its proximity to Louisiana, the second largest gas producer in the Nation. Some of the State's gas-fired electricity comes from the first and fifth largest plants in the State, Baxter Wilson and Andrus, which are operated by Mississippi Power, a subsidiary of the Atlanta-based Southern Company.

Mississippi is also very reliant on Grand Gulf, its only nuclear power plant and the State's second largest plant. In 1996, Grand Gulf generated 32.0 percent of the utility electricity generated in Mississippi. Since 1987, Grand Gulf's capacity factor has been higher than the national average. Given Grand Gulf's young age, however, MP&L may have significant stranded costs associated with the plant if utility restructuring takes place.

In June 1998, the Mississippi Public Service Commission issued a Revised Proposed Plan for retail competition that addresses the comments received from industry, consumers, suppliers, and utilities. Hearings will be held throughout 1999 to address these issues, and retail competition will be phased in beginning in January 2001. Full competition is slated for January 2004.²

¹ The Clean Air Act Amendments of 1990 included 750 megawatts of nameplate capacity at Mississippi Power's Jack Watson plant to begin compliance with stricter emissions standards for sulfur dioxide and nitrogen oxides.

² Energy Information Administration, Status of State Electric Utility Deregulation Activity, http://www.eia.doe.gov/cneaf/electricity/chg_str/tab5rev.html.

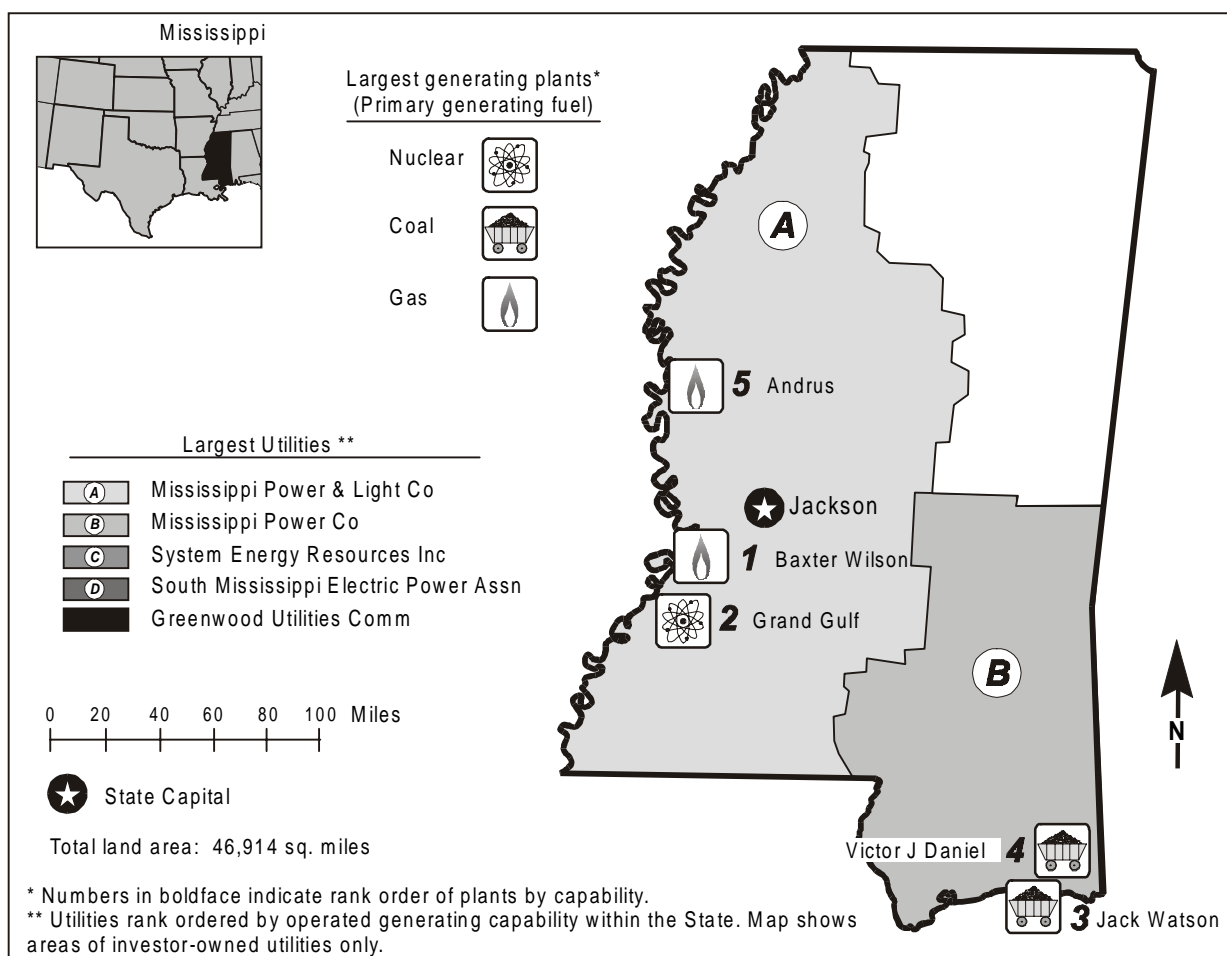


Table 1. 1996 Summary Statistics

Item	Value	U.S. Rank	Item	Value	U.S. Rank
NERC Region(s)		SERC/SPP	Utility		
Net Exporter or Importer		Importer	Capability (MWe)	7,177	32
State Primary Generating Fuel		Coal	Generation (MWh)	28,838,302	35
Population (as of 7/96)	2,710,750	31	Average Age of Coal Plants	20 years	
Average Revenue (cents/kWh)	6.01	^a 20	Average Age of Oil-fired Plants	25 years	
Industry			Average Age of Gas-fired Plants	29 years	
Capability (MWe)	W	^b W	Average Age of Nuclear Plants	11 years	
Generation (MWh)	W	^b W	Average Age of		
Capability/person			Hydroelectric Plants	--	
(KWe/person)	W	^b W	Average Age of Other Plants . . .	--	
Generation/person			Nonutility^c		
(MWh/person)	W	^b W	Capability (MWe)	W	W
Sulfur Dioxide Emissions			Percentage Share of Capability	W	W
(Thousand Short Tons)	93	29	Generation (MWh)	W	W
Nitrogen Oxide Emissions			Percentage Share of		
(Thousand Short Tons)	68	36	Generation	W	W
Carbon Dioxide Emissions			-- = Not applicable. W = Withheld.		
(Thousand Short Tons)	23,198	34			
Sulfur Dioxide/sq. mile (Tons)	1.98	29			
Nitrogen Oxides/sq. mile (Tons)	1.46	36			
Carbon Dioxide/sq. mile (Tons)	494.49	34			

Table 2. Five Largest Utility Plants, 1996

Plant Name	Type	Operating Utility	Net Capability (MWe)
1. Baxter Wilson	Gas	Mississippi Power & Light Co	1,321
2. Grand Gulf	Nuclear	System Energy Resources Inc	1,179
3. Jack Watson	Coal/Gas	Mississippi Power Co	1,090
4. Victor J Daniel Jr	Coal	Mississippi Power Co	1,081
5. Andrus	Gas	Mississippi Power & Light Co	761

Table 3. Top Five Utilities with Largest Generating Capability, and Type, Within the State, 1996
(Megawatts Electric)

Utility	Net Summer Capability	Net Coal Capability	Net Oil Capability	Net Gas Capability	Net Nuclear Capability	Net Hydro/Other Capability
A. Mississippi Power & Light Co	2,716	--	11	2,705	--	--
B. Mississippi Power Co	2,512	1,855	--	657	--	--
C. System Energy Resources Inc ...	1,179	--	--	--	1,179	--
D. South Mississippi El Pwr Assn ...	613	400	20	193	--	--
E. Greenwood Utilities Comm.	65	--	--	65	--	--
Total	7,085	2,255	31	3,620	1,179	--
Percentage of Utility Capability ..	98.7	--	--	--	--	--

-- = Not applicable.

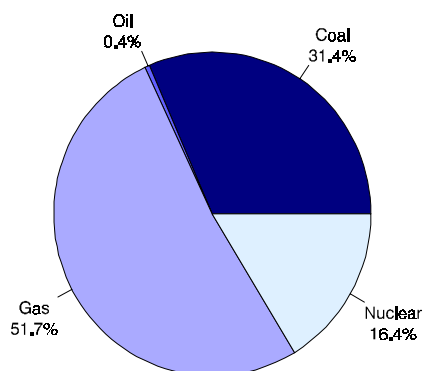
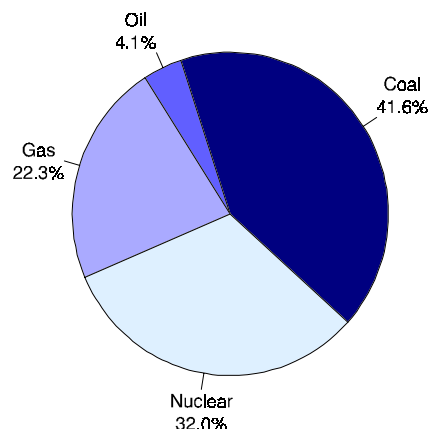
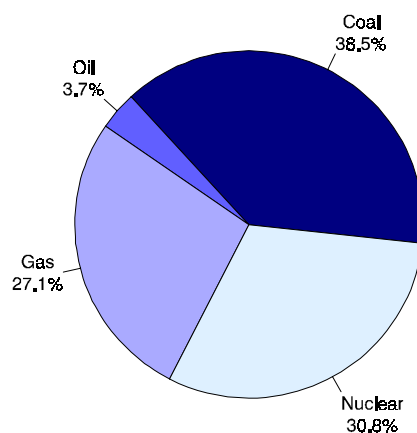
Figure 1. Utility Generating Capability by Primary Energy Source, 1996

Figure 2. Utility Generation by Primary Energy Source, 1996

Figure 3. Energy Consumed at Electric Utilities by Primary Energy Source, 1996


Table 4. Electric Power Industry Generating Capability by Primary Energy Source, 1986, 1991, and 1996
(Megawatts Electric)

Fuel	1986	1991	1996	Percentage Share 1986	Percentage Share 1991	Percentage Share 1996
Coal	2,219	2,246	2,255	32.2	32.0	31.4
Oil	106	894	31	1.5	12.7	0.4
Gas	3,456	2,733	3,712	50.2	39.0	51.7
Nuclear	1,108	1,143	1,179	16.1	16.3	16.4
Hydro/Other	--	--	--	--	--	--
Total Utility	6,888	7,016	7,177	100.0	100.0	100.0
Total Nonutility	292	355	W	--	--	--

-- = Not applicable. W = Withheld.

Table 5. Electric Power Industry Generation of Electricity by Primary Energy Source, 1986, 1991, and 1996
(Thousand Kilowatthours)

Fuel	1986	1991	1996	Percentage Share 1986	Percentage Share 1991	Percentage Share 1996
Coal	9,806,108	8,750,253	12,010,196	51.7	37.5	41.6
Oil	835,561	370,130	1,173,503	4.4	1.6	4.1
Gas	4,251,175	5,051,811	6,430,010	22.4	21.7	22.3
Nuclear	4,086,714	9,132,933	9,224,593	21.5	39.2	32.0
Hydro/Other	--	--	--	--	--	--
Total Utility	18,979,558	23,305,127	28,838,302	100.0	100.0	100.0
Total Nonutility	2,098,253	2,554,139	W	--	--	--

-- = Not applicable. W = Withheld.

Table 6. Electric Power Industry Consumption by Primary Energy Source, 1986, 1991, and 1996
(Quadrillion Btu)

Fuel	1986	1991	1996	Percentage Share 1986	Percentage Share 1991	Percentage Share 1996
Coal	0.103	0.090	0.122	50.1	35.1	38.5
Oil	0.009	0.004	0.012	4.3	1.7	3.7
Gas	0.049	0.064	0.086	24.1	25.0	27.1
Nuclear	0.044	0.098	0.098	21.5	38.3	30.8
Hydro/Other	--	--	--	--	--	--
Total Utility	0.206	0.256	0.318	100.0	100.0	100.0
Total Nonutility	0.101	0.096	W	--	--	--

-- = Not applicable. W = Withheld.

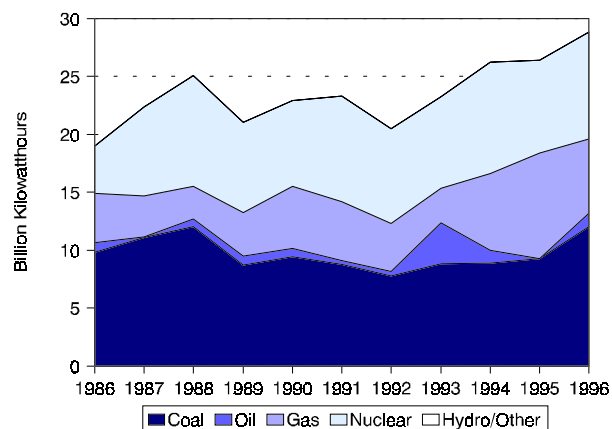
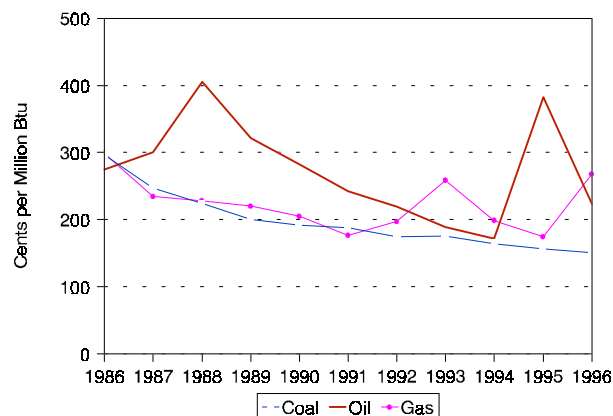
Figure 4. Utility Generation of Electricity by Primary Energy Source, 1986-1996**Figure 5. Utility Delivered Fuel Prices for Coal, Oil, and Gas, 1986-1996**
(1996 Dollars)

Table 7. Utility Delivered Fuel Prices for Coal, Oil, and Gas, 1986, 1991, and 1996
(Cents per Million Btu, 1996 Dollars)

Fuel	1986	1991	1996	Annual Growth Rate 1986-1996 (Percent)
Coal	296.2	187.6	151.1	-6.5
Oil	275.0	242.4	223.6	-2.0
Gas	298.9	176.7	267.9	-1.1

Figure 6. Estimated Sulfur Dioxide Emissions, 1986-1996

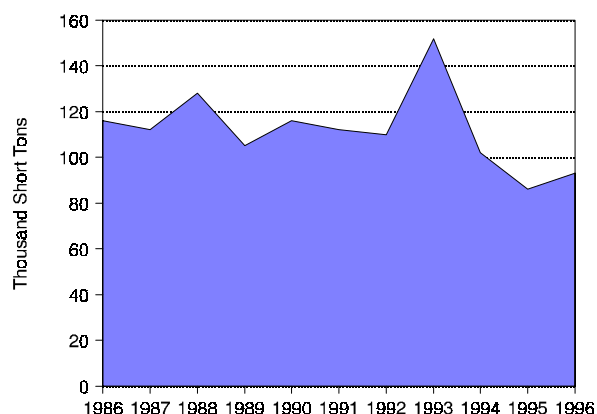


Table 8. Electric Power Industry Emissions Estimates, 1986, 1991, and 1996
(Thousand Short Tons)

Emission Type	1986	1991	1996	Annual Growth Rate 1986-1996 (Percent)
Sulfur Dioxide	116	112	93	-2.2
Nitrogen Oxides ^d ...	47	50	68	3.9
Carbon Dioxide ^d	14,317	18,444	23,198	4.9

Figure 7. Estimated Nitrogen Oxide Emissions, 1986-1996

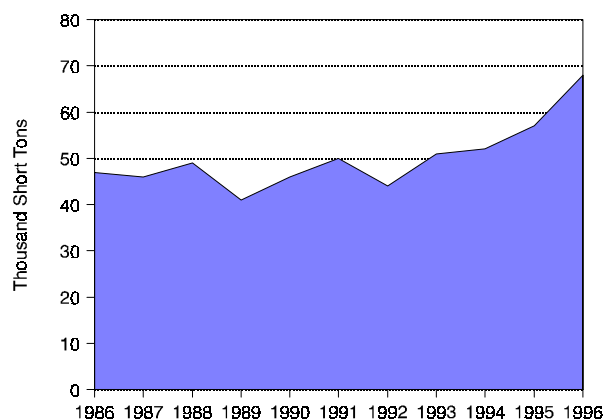


Figure 8. Estimated Carbon Dioxide Emissions, 1986-1996

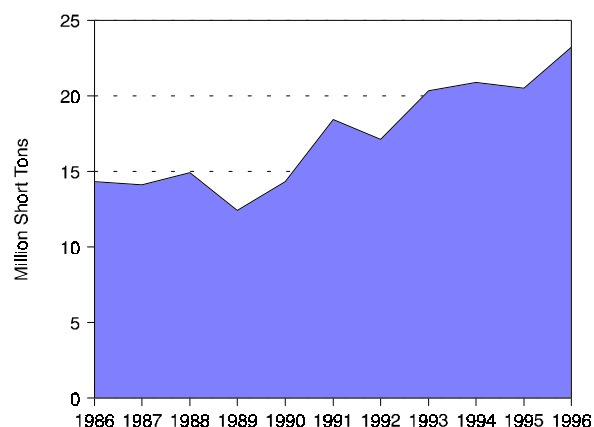
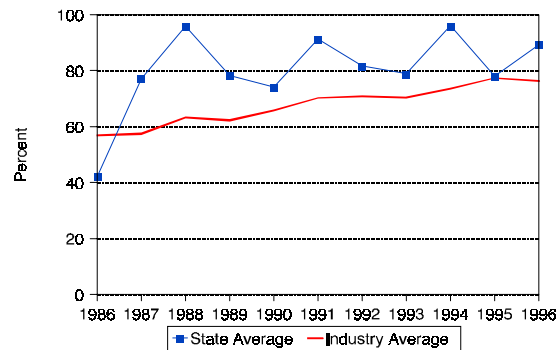


Table 9. Utility Retail Sales by Sector, 1986, 1991, and 1996
(Megawatthours)

Sector	1986	1991	1996	Annual Growth Rate 1986-1996 (Percent)	Percentage Share 1986	Percentage Share 1991	Percentage Share 1996
Residential ..	10,868,066	12,517,521	14,964,600	3.3	41.0	37.9	37.8
Commercial	5,698,676	6,831,768	7,912,999	3.3	21.5	20.7	20.0
Industrial ...	9,328,966	13,024,289	16,042,796	5.6	35.2	39.4	40.5
Other	636,266	645,805	701,979	1.0	2.4	2.0	1.8
Total	26,531,968	33,019,383	39,622,374	4.1	100.0	100.0	100.0

Figure 9. Nuclear Power Capacity Factor Comparison, 1986-1996**Table 10. Utility Retail Sales Statistics, 1986, 1991, and 1996**

Item	Investor-Owned Utility	Public	Federal	Cooperative	Total
	1986				
Number of Utilities	2	23	1	24	50
Number of Retail Customers	503,187	116,785	6	466,431	1,086,409
Retail Sales (MWh)	14,274,583	2,899,564	1,317,424	8,040,397	26,531,968
Percentage of Retail Sales	53.8	10.9	5.0	30.3	100.0
Revenue from Retail Sales (thousand 1996 \$) ^e	1,181,727	207,461	48,210	648,240	2,099,667
Percentage of Revenue	56.3	9.9	3.0	30.9	100.0
1991					
Number of Utilities	2	23	1	26	52
Number of Retail Customers	527,423	126,657	6	528,996	1,183,082
Retail Sales (MWh)	16,436,590	3,435,504	2,977,135	10,170,154	33,019,383
Percentage of Retail Sales	49.8	10.4	9.0	30.8	100.0
Revenue from Retail Sales (thousand 1996 \$) ^e	1,185,718	219,935	86,991	730,850	2,234,280
Percentage of Revenue	53.1	9.8	4.4	32.7	100.0
1996					
Number of Utilities	2	23	1	25	51
Number of Retail Customers	560,843	126,769	6	585,306	1,272,924
Retail Sales (MWh)	19,667,181	3,941,375	3,153,951	12,859,867	39,622,374
Percentage of Retail Sales	49.6	10.0	8.0	32.5	100.0
Revenue from Retail Sales (thousand 1996 \$) ^e	1,268,460	222,247	80,724	811,639	2,383,070
Percentage of Revenue	53.2	9.3	3.4	34.1	100.0